REMARKS/ARGUMENTS

Applicants have carefully reviewed the Office Action mailed May 18, 2007 and the Decision on Appeal of June 6, 2009, in which claims 1-56 were pending, claims 1-40 were withdrawn from consideration and claims 41-56 were rejected. With this paper, claims 1-20 have been cancelled, claims 41, 48, 53 and 54 have been amended and claims 57 and 58 have been added. Reconsideration, examination and allowance of all pending claims are respectfully requested.

Claim Amendments

Support for the amendments to claims 41, 48, 53 and 54 and for new claims 57-58 may be found, for example, in paragraphs 31, 35-36 and Figures 3 and 4 of the application as published. No new matter has been introduced.

Decision on Appeal

In the Decision on Appeal, the Board's reasoning for affirming the rejections is the following. "Claim 41 recites a produce that results from treating a 'portion of the surface of the one or more metallic filaments to provide a final surface area that is greater than the initial surface area.' Cohen discloses a wire (i.e. a metallic filament) that is etched with acid by drawing the wire through the acid at gradually increasing speeds to produce a wire with a tapered diameter (i.e., smaller diameter resulting from long exposure to acid tapering to larger diameter resulting from shorter exposure to acid). Based on the process described by Cohen, it is reasonable to conclude that, toward the end of the etching process, a portion of the wire will be exposed to the acid etchant for a period of time that will result in that portion of wire having a surface that is pitted but not smaller in overall diameter, and thus will have a surface area that is greater than the initial surface area." Page 7.

Applicant's amendments and arguments are based on a close reading of the Board's rationale.

35 U.S.C. § 102(b) Rejections

Claim 41 was rejected under 35 U.S.C. § 102(b) as being anticipated by *Cohen* (U.S. Patent 5,330,521). Applicants respectfully traverse this rejection.

Claim 41 now recites "wherein the one or more metallic filaments each have a thickness and wherein the portion extends along each of the one or more metallic filament for a length that is at least twice the thickness of the filament and wherein the portion encircles the metallic filament for the length, wherein the portion has a profile that is constant along the length." In other words, the portion extends along the one or more metallic filaments for a non-trivial length, and along this length, the profile of the portion is constant.

In the process described by Cohen, the portion of the wire of Cohen that would have an increased surface area but not a smaller overall diameter is, at most, a narrow band. For any length of the etched wire of Cohen that is at least twice the thickess of the wire, the profile of the wire would taper (this is, after all, the object of the etching process of Cohen) and would therefore not have a constant profile as claimed.

For at least this reason, applicants submit that Cohen does not anticipate claim 41 as amended and, consequently, that claim 41 is in condition for allowance.

35 U.S.C. § 103(a) Rejections

Claims 41-56 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Parisi et al.* (U.S. Patent Publication 2001/0027310) in view of *Cohen.* Applicants respectfully traverse this rejection.

Parisi et al. appears to disclose a multi-layered catheter with a braided support member layer. The Examiner stated that *Parisi et al.* does not appear to teach or suggest "[a] metallic member that is etched to provide a difference in surface area."

Cohen is cited for teaching a metallic member that is etched to provide a difference in surface area. Two different processes in Cohen are cited in this rejection. One is the etching process used to taper the wire discussed above and relied on by the Board in affirming the rejection. The second is the cleaning process of column 6, lines 35-65 in which etching is used to clean oxides or films from the wire core prior to further processing. The Board does

not rely on this teaching of Cohen in affirming the rejections. Nevertheless, on page 5 of the Examiner's Answer, reliance on this teaching of Cohen is maintained.

The Examiner writes "Applicant argues that the Cohen reference mentions etching to clean oxides off the surface to promote electrical continuity and promote adhesion. This does not necessarily increase surface area and that etching is merely a chemical removal process 'like sanding a piece of wood.' Examiner asserts that even if the Cohen process is decreasing the surface area of the reinforcing member, the end result of the above mentioned etching process is expected to be a reinforcing member that has surface which is not completely smooth; which is the exact result achieved by the claimed process steps argued by Applicant."

However, the end result claimed is "a final surface area that is greater than the initial surface area" and not merely a surface that is not completely smooth. The Examiner does not assert that the final surface area obtained by Cohen through the cleaning process is greater than the initial surface area. To the contrary, the point is conceded: "even if the Cohen process is decreasing the surface area of the reinforcing member..." Examiner's Answer, page 5. Further, the cleaning process of Cohen does not even necessarily result in a surface that is not completely smooth or even a surface that is less smooth than the initial surface.

If, for example, there are oxides (one of the surface contaminants discussed by Cohen) on the surface of core wire 22, these oxides have likely built up in a manner that does not leave the surface of the core wire completely smooth. One cannot say whether the surface after the cleaning process where these oxides are removed is more smooth or less smooth than the initial surface. Further, the oxides are a different chemical composition than the core wire. One can use an acid that affects the oxides without affecting the core wire and thus remove the oxides without pitting the core wire. If, in a second example, there are films (the other surface contaminant that Cohen teaches), these may be smooth. One can, for example, imagine a film of oil applied during a previous manufacturing process. But here again, there is present a material different from that of the underlying core wire, and there are acids that may remove the film without affecting the core wire. One cannot therefore even assert that the surface after the etching process is less smooth than the surface prior to the etching process.

Cohen, therefore does not teach at least the element of claim 1 of "treating at least the portion of the surface of the one or more metallic filaments to provide a final surface area that is greater than the initial surface area." As this is the element that Parisi also lacks, applicants respectfully submit that claim 41 is patentable over the cited references.

Amended independent claim 48 recites "a reinforcing member including a metallic filament that includes a metallic surface that includes a portion that has been treated to provide an increased surface area relative to a surface area of the portion prior to treatment…wherein the portion includes a majority of the surface area of the metallic filament." Because the portion includes a majority of the surface area of the metallic filament, the tapering process of Cohen, which, at most, provides a very narrow region having an increased surface area, does not teach a reinforcing member as claimed. And because the portion has "an increased surface area relative to a surface area of the portion prior to treatment," the cleaning process of Cohen also does not teach a reinforcing member as claimed.

Amended independent claim 53 now recites "a metallic reinforcing member including a metallic surface, wherein at least a portion of the surface has been treated to provide an increased surface area relative to a surface area of the portion prior to treatment, wherein the treatment of the surface to provide an increased surface area of the portion relative to the surface area of the portion prior to treatment *consists of* treating the portion to provide an increased surface area relative to the surface area of the portion prior to treatment." (Italics added). Because the tapering process of Cohen consists of treating more than the portion where the surface area is increased relative to the surface area of the portion prior to treatment, the tapering process of Cohen does not produce a reinforcing member as claimed. And because the metallic reinforcement member has a portion with an increased surface area, the cleaning process of Cohen does not produce a reinforcing member as claimed.

Amended independent claim 54 now recites "a braid including a plurality of metallic braid filaments each including a metallic surface, wherein the surfaces of the plurality of the metallic braid filaments are chemically etched to provide a roughened surface such that the chemical etching increases the surface area of the plurality of metallic braid filaments relative to the surface area of the plurality of metallic braid filaments prior to the chemical etching." Because "the surfaces" (rather than merely a portion of the surfaces) are chemically etched

such that the surface area is increased relative to the surface area prior to etching, the tapering process of Cohen does not produce a plurality of metallic braid filaments as claimed. And because the plurality of metallic braid filaments have an increased surface area, the cleaning process of Cohen does not produce a plurality of metallic braid filaments as claimed.

As Cohen does not cure the deficiencies of Parisi with respect to independent claims 48, 53 or 54, applicants respectfully submit that these claims are allowable over the cited references. As claims 42-47, 49-52, 55-56 and new claims 57-58 depend from one of independent claims 41, 48, 53 and 54, which applicants submit are allowable, and contain additional elements, applicants submit that these claims are likewise in condition for allowance.

Conclusion

Reexamination and reconsideration are respectfully requested. It is respectfully submitted that the claims are now in condition for allowance, and issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

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By his attorney,

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